time for any US college of pharmacy. Therefore, faculty members should consider the costs and benefits associated with pursuing such certification. This information may assist faculty members in resource use and decision-making with regard to BPS certification.

HEALTH CARE POLICY—Health System Studies

PHP25

MECHANISMS AND OUTCOMES OF UTILIZATION REVIEW CONDUCTED AMONG PHIC-ACCREDITED HEALTH CARE FACILITIES IN THE PHILIPPINES

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OBJECTIVE: To describe the mechanisms and outcomes of utilization review conducted by Philippine Health Insurance Corporation on its health providers. **METHODS:** Utilization review conducted among PHIC-accredited health providers consisted of three components. First part involved retrospective review of claims database wherein the initial focus was on hospital outliers (i.e. small percentage of hospitals that have utilization rates significantly higher than their counterparts) and identification of utilization patterns of care and medical services rendered. Second portion was an external review process wherein a group of practicing physicians functioned as peer review committee evaluating whether the care provided was medically appropriate and necessary. Third part included assessment of the rationality of drug use in selected regions of the Philippines. **RESULTS:** Based on bed occupancy rate and number of claims filed, 126 PHIC-accredited facilities nationwide were identified as outliers. Majority of the hospitals identified with extreme utilization rates were privately owned and were categorized as primary hospitals. Forty-eight percent (61/126) of the hospitals identified as outliers had extremely disproportionate reimbursements for acute bronchitis. Among the varied clinical cases deliberated on by the peer review committee, management in 33% was found to be inappropriate and unnecessary. Based on review of prescriptions, the average number of prescriptions per patient encounter in selected hospitals was 3 drugs (SD ± 3). Ninety percent of these prescriptions were written in generics. 31% of these prescriptions were for antibiotics. One drug prescription based on existing data costs about P321.00 (Equivalent to $ 6 per prescription). **CONCLUSION:** Unnecessary, inappropriate, or excessive use of medical services was identified through the different mechanisms of utilization review. The data gathered paved the way to a feedback process for health providers that can possibly translate into reduced inappropriate variations in the use of medical health care services and then perhaps cost-savings.

PHP26

INTENSIVIST PRACTICE CHANGE IN GLUCOSE CONTROL FOR CRITICALLY ILL PATIENTS

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There is increasing evidence that tighter control of glucose levels in critically ill patients improves patient outcomes. **OBJECTIVES:** To determine if education and implementation of a continuous insulin infusion protocol during 2002 improved glucose control in the intensive care setting. **METHODS:** A retrospective chart review was conducted on ICU patients during a four-month period in one of three consecutive years. Patients were included if they were in the ICU for a minimum of three days, were ventilated, received care from an intensivist, and had a medical DRG at discharge. Additional information was gathered from electronic charge data. Alpha for all analyses was set at 0.05. **RESULTS:** The following number of charts was reviewed for each time period: 22 in 2001, 51 in 2002, and 31 in 2003. There were no significant differences in patient age, gender, marital status, race, diabetes as a secondary diagnosis, or hospital or ICU length of stay. Regression analysis demonstrated that median glucose values per patient day were highest in 2001 (164.1 mg/dL), compared to 2002 (136.1 mg/dL) and 2003 (127.7 mg/dL). The number of documented glucose values was lowest in 2001 [2.4 per pt day (sd 2.5)], and highest in 2002 [5.8 per pt day (sd 5.4)], compared to 2003 patients [4.3 per pt day (sd 5.2)]. **CONCLUSION:** Efforts to manage glucose in the critically ill appear effective as evidenced by a higher number of documented values/day and a decrease in median glucose values per patient day.

PHP27

THE ASSOCIATION OF RECOMMENDED SURGICAL SITE INFECTION GUIDELINES AND OTHER FACTORS WITH HOSPITAL LENGTH OF STAY (LOS) IN PATIENTS UNDERGOING DIFFERENT CLEAN OR CLEAN-CONTAMINATED PROCEDURES

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OBJECTIVES: To determine what factors can help to predict if patients undergoing 13 different clean or clean-contaminated procedures will get the recommended antimicrobial prophylaxis and to investigate the association of compliance to published surgical site infection guidelines and other factors with hospital length of stay (LOS). **METHODS:** Data included 2047 patients undergoing cardiac, gynecologic, gastrointestinal, and arthroplasty procedures, from 47 hospitals during a 3-month period. Data included patient demographic,

hospital characteristics, patterns of medication used, and outcome measures. Multivariate analyses such as general linear model (GLM) and logistic regression were performed. **RESULTS:** Logistic regression results show that hospital size ($p < 0.0001$), hospital type ($p < 0.0472$), type of procedure ($p < 0.0001$), and hospitals having a careplan for surgical site infection ($p < 0.0032$) were significantly associated with the probability for patients to get the recommended prophylaxis. Based on the results from GLM regression analysis, older age is significantly associated with longer LOS ($p < 0.0001$) for all procedures. Scheduled operations ($p < 0.0001$) and receiving the recommended prophylaxis ($p < 0.0214$) were significantly related to a decrease in LOS. Also, a significant effect on LOS was observed, depending what kind of surgical procedure patients underwent and what hospital they were admitted. **CONCLUSIONS:** Compliance with practice guidelines may reduce LOS, which suggests improved patient outcomes and decreased health care costs.

PHP28

COST-BENEFIT ANALYSIS OF A STATE POISON CENTER

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OBJECTIVE: A cost-benefit analysis was conducted to compare the costs associated with operating a poison center to the benefits derived from center availability. **METHODS:** Costs were measured as the direct cost of operating the center, including personnel, reference sources for clinical information, equipment, and administrative overhead expenses. Benefits were measured as the opportunity cost of alternative treatment strategies had a poison center not been available to callers. Data were collected through a concurrent telephone survey of poison center callers at the time of the initial poison exposure call. Callers were asked a series of three questions regarding actions they would have taken if the poison center were not available. Follow-up calls were used to assess actions callers actually took after calling the center. Inputs and benefits were valued using average local prices for medical services from a state paid claims database. A decision analysis model was constructed to calculate the expected cost of poison treatments under two scenarios (poison center available or not). Model probabilities were derived from the percentage of callers indicating that they would pursue a particular course of action. **RESULTS:** A total of 1695 poison exposure cases were included in the analysis. The average cost per poison exposure associated with not having a poison center available was $62.40. This figure represents the benefit of having a poison center. The average cost of managing a poison call was $8.52, yielding a benefit per call ratio of $7.32. This ratio reflects the amount of additional health care expenditures avoided per dollar expended in a poison center consultation. A sensitivity analysis was conducted to assess the impact of changes in emergency service use on the model. **CONCLUSION:** Based on our analysis, the immediate information and treatment advice available through a state-run poison center has as a positive societal value.

PHP29

WHERE DOES THE GERMAN HEALTH CARE SYSTEM WANT TO GO TO?

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OBJECTIVES: The focus of present health political discussion in Germany is concentrated on financing as an instrument to meet the future needs of German population. Government wants to cut back benefits by offering alternative funding mechanism, which is tax financing and additional patient payments. The recent and significant changes to Health care funding in Germany is reviewed. **METHODS:** A literature review was conducted to analyze a number of strengths to the financing and funding arrangements in the German Health care system. The potential advantages for priorities, efficiency, and equity from this structure of financing are considered. The results will be compared to the design of the currently started plans for a further Health care reform in Germany with focus on financing. **RESULTS:** The current most important scheme of social health insurance (SHI) finance intended to mobilize resources for health care, to insure against risk, and to provide stable finance seems for the government not to be any longer the funding mechanism that helps to control costs and to secure access to broad priority services. Government intends to use finance mechanism to shift low priority services into SHI and put high priority services into finance mechanism of user charges. The level of priority services is—so far—not a result of discussions in the community. Financial fairness is best served by the cornerstone of more progressive prepayments as it is the case for SHI premiums instead of patient payments. Co-payments have the effect of rationing use health care services but does not effect in rationalizing its demand by insured. **CONCLUSIONS:** Currently risks are distributed according to ability to pay rather than to risk of disease. Financing fairness is best served by the cornerstone of progressive prepayments as it is the case for SHI premiums instead of patient payments.

PHP30

THE IMPLICATIONS OF THE USE OF TUBE FEEDING IN THE UK SECONDARY HEALTH CARE SYSTEM

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OBJECTIVE: Although tube feeding is commonly used in hospitals in the UK, clinician interviews showed that no